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Poster Presentation

Isolation and Culture of Primary Microglial Cells from Glioblastoma Patients

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Abstract

Glioblastoma multiform (GBM) is the most common and malignant form of glial tumors. GBM microenvironment contains various cell types showing characteristics of activated or dimorphic macrophages/microglia. Some of these cells provide significant help for tumor growth, while others are able to inhibit tumor progression. Microglia play a major role in brain function by monitoring tissue for pathogen via phagocytic activities. Following surgical resection, human tissue samples were transfered to the research facility. Then, mechanical and chemical dissociation and enzymatic digestion were performed. Cell pellets were resuspended in media. When reaching complete confluency, mixed glial cultures were shaked to remove astrocytes. Finally immunocytochemistry was performed on remaining cells for characterization. The cells generated from GBM surgeries were likely a mix of microglia and macrophages. A small amount of astrocytes were also presentin the culture. After confirming cell phenotype, a more detailed immunocytochemical analysis was performed. Isolated microglia express Iba1 marker. Microglia obtained from GBM can be utilise for in vitro and in vivo investigation.

Keywords: GBM, Microglia, Iba1

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